



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,843	02/07/2001	Tamas Lukacsovich	2000-1561A	2951
7590 12/16/2003 Wenderoth Lind & Ponack Suite 800 2033 K Street NW Washington, DC 20006			EXAMINER SHUKLA, RAM R	
			ART UNIT 1632	PAPER NUMBER

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/700,843		LUKACSOVICH ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Ram R. Shukla		1632	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 28 September 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-15 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Applicants' response and amendment filed 9-28-2003 have been received and entered.
2. Claims 16-19 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 13.
3. This application contains claims 16-19 drawn to an invention nonelected with traverse in Paper No. 13. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
4. Claims 1-15 are under consideration.
5. The 112 first paragraph rejection of claim 9 has been withdrawn in view of applicants' arguments.
6. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 8 and 10-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.  
  
Claims 8 and 15 are indefinite because the antecedent basis for the term "the resistance gene promoter" in line 2 is not clear. It is noted that claim 1 or claim 10 do not recite "a resistance gene promoter".  
  
Claim 10 is vague and indefinite because it is unclear as to what is meant by the phrase "to which transformants having the drug resistance gene are survivable."

Art Unit: 1632

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 5-8 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sands et al (US 6,136,566, 10-24-00, effective filing date 10-4-1996) in view of Thummel et al (Gene 74:445-456, 1988) and Pirrotta et al (Biotechnology Vectors a survey of molecular cloning vectors and their uses, ed. RL Rodriguez et al. Vol 1, 1988, pages 437-456, Butterworths Press, Boston) and Gustafson K, Boulianne GL (Genome 1996 39(1):174-82) for reasons of record set forth in the previous office action of 3-27-2003.

***Response to Arguments***

Applicant's arguments filed 9-28-2003 have been fully considered but they are not persuasive. It is noted that applicants have compared the mechanism of the claimed invention with the teachings of the cited references, however, they did not address the issue: why it would not have been obvious to make the claimed invention with a reasonable expectation of success and whether the motivation was there to make the claimed invention. It is further noted that the rejection was a 103 rejection and not a 102 rejection and therefore it is the combined teaching of all the cited references which provide the motivation and methodology to practice an invention. As noted in the previous office action,

At the time of the invention it would have been obvious to an artisan of ordinary skill to modify the vector of Sands et al by cloning white gene sequences in the exon that would allow a screening of phenotype in Drosophila or clone the

vector of Sands in the pCasper vector with a reasonable expectation of success since the methods of cloning genes and modifying vectors was routine in the art as taught in the arts of Sands et al, Thummel et al or Pirrotta. An artisan would have cloned the white gene in the vector of Sand because this would have allowed trapping of genes in Drosophila. Additionally, an artisan would have been motivated to modify pCasper vector because it would have allowed the use of P element transposons that would result in trapping of multiple gene due to the transposition property of P element.

An artisan of skill would have been motivated to modify the vector of Sands by substituting the reporter gene with Gal4-UAS system with a reasonable expectation of success because the use of GAL4-UAS system was routine in the art of Drosophila gene trap techniques at the time of the invention. An artisan of skill would have been motivated to use the system because this would have allowed a two part detection system, first mobilization of Gal4 in the entire genome of Drosophila and then after crossing over the GAL4 flies with LACZ flies that allow expression under UAS transcriptional control as taught by Gustafson et al. Regarding the use of luciferase reporter gene in claim 13, it is noted that any reporter gene could be used in place of LACZ, for example, luciferase or GFP etc. and such modifications or substitutions of the reporter genes were routine in the art ( see Sands et al).

10. The vector of claim 4 is free of the art of record.

11. Claim 4 remains objected to because it is dependent on rejected claims. If the claim was presented in an independent form with all the limitations of the claims it is dependent on, the claim will be allowable.

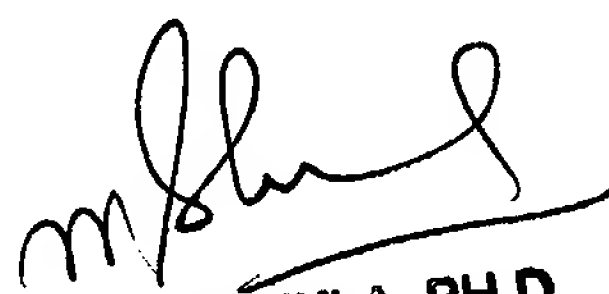
12. No claim is allowed.

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ram R. Shukla whose telephone number is (703) 305-1677. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Reynolds, can be reached on (703) 305-4051. The fax phone number for TC 1600 is (703) 703-872-9306. Any inquiry of a general nature, formal matters or relating to the status of this application or proceeding should be directed to the William Phillips whose telephone number is (703) 305-3413.

Ram R. Shukla, Ph.D.  
Primary Examiner  
Art Unit 1632



**RAM R. SHUKLA, PH.D.  
PRIMARY EXAMINER**